

### **Remarks/Arguments**

An initial cosmetic amendment has been made to ¶ 2 referring to the Marie D. Lindsay patent application. After the present Lovell application had been filed, that Lindsay application has matured to a patent, so the superfluous PCT information has been deleted and the U. S. Patent Number for that Lindsay patent has been entered instead.

With regard to all of the amendments included herein, these have all been for the purpose of correcting certain in advert stylistic matters, including the seeking of better clarity, and not for any purpose of narrowing the scope of any claim in order to avoid a reference.

The requirements concerning the term “characterized in” and the element numbers in the claims have been met.

Applicant acknowledges having inadvertently mis-numbered the claims, skipping over a claim 4, and appropriate correction is filed herewith.

Claims 2, 3, 5, 6, 13 and 14 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite in the use of the term “pre-selected,” according to *Seagram & Sons vs. Marzwell*, 84 USPQ 180. Office Action p. 2, ¶ 5. The difficulty with that assertion is that Seagram says nothing whatever about the term “pre-selected,” but only about the term “pre-determined.” Moreover, even had the Examiner presented a case that addressed the same word as that on which this rejection was based, this rejection constitutes a perfect illustration of why short phrases or sentences cannot be validly applied everywhere and in every context.

The matter at issue in *Seagram* is whether or not the disclosure or claims had included sufficient information to justify issuance of a patent on a testing procedure. The point being made in *Seagram* was the obvious fact that in the particular context of the application in question, and in how the term was used, the term “predetermined” by itself did not contribute any information, since “Predetermined, according to appellant’s own definition, merely means determined beforehand. If appellant desired to patent detailed controls over the testing process, they were not expressed in its claims.” That “predetermined” quotation from the case merely notes the obvious fact that as used, the phrase in question, without more, is nothing more than a definition of what the word “predetermined” means, and did not itself contribute any information that would constitute a description of anything that was statutorily sufficient to support the allowance of a claim. In short, adequate basis for certain claims was sought in the specification, and since all that was found was the term “predetermined,” what the case sought to show was that such term did not include any content that could serve as a basis for the

claims in question. By pointing out what such term meant – “determined beforehand” – it should then be abundantly clear that such term could not by itself provide such basis. It certainly could not stand for the broad proposition that “predetermined” itself is in any way ambiguous, in all contexts and for whatever purpose: by the USPTO records from 1790 to the present there were 560,370 patents issued that used the term “predetermined” in one or more claims. Applicant thus respectfully requests that this rejection be withdrawn, for the reasons stated.

Claims 3, 5 and 6 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite in the use of the term “type.” Applicant concurs with this rejection and corrective action is filed herein, by way simply of deleting the term and referring only to at least one of a Markush group consisting of silica gel, coconut based activated carbon, etc., in themselves, without trying to make them into a “type.” Substitution is also made for the inappropriate term “and/or.”

Claims 8 and 11 the Examiner finds indefiniteness because of the use of the terms “plate-like” and “box-like,” but “includes elements not actually disclosed. In claim 8 (now amended to be claim 7), “plate-like structures” are identified as being “disposed generally coplanar with the direction of air flow through said air conduit (44) . . . .” Applicant concurs with the rejections, it seeming that in searching for uses of those terms in the specification, it was not noticed that the usages found actually appeared in the earlier Background of the Invention, having been quoted from the patents there being discussed, the terms “plate” and “box” in the specification not including the suffix “-like”. Applicant therefore amends claims 8 and 11 to use some descriptive language for those elements that actually appears in the specification.

Applicant concurs with the rejection based on Claim 10 (now amended to be claim 9) by removing the “capable of being drawn” and “can be drawn” language and replacing that with “means for drawing” language in the standard “means plus” language.

Initially, Applicant respectfully traverses all 35 U.S.C. §103 rejections that rest on the combination either of Van der Smissen *et al.* or Jones with Ricci, on the basis of M.P.E.P. §706.02(j):

\* \* \* To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there

must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. \* \* \*

It is respectfully submitted that the Examiner's burden of proof on this matter has not been met since neither the principal reference nor any secondary reference expresses a suggestion or motivation to attempt the combination conceived by the Examiner, nor pointed out any basis for there being a reasonable expectation of success, and the Examiner has not asserted any knowledge generally available to one of ordinary skill in the art. Moreover, as will be shown below, most of the elements mentioned by the Examiner as being found in the reference are either not what the Examiner said they were or do not perform the same function as do those in the application to which the Examiner refers those reference elements. And again as to Claim 1, the blocking sheet (68) has been added as another clause, since that aspect of the structure had been inadvertently overlooked. That was a particularly egregious lapse of concentration in the drafting of Claim 1, since the highly toxic and indeed poisonous gases such as Sarin that might be encountered on the battlefield, and the truly noxious gases of an urban environment such as those of Bangkok, Thailand or Los Angeles are very important to be filtered out, and any added feature such as that blocking sheet (68), as yet another level of protection, could be life-saving.

Contrary to the Examiner's statement otherwise (Office Action p. 3, last paragraph), Ricci does not have an air filter, nor address air filtration at all, but refers only to the application of ultraviolet radiation (Col 2. Lines 45 - 47) to kill pathogens, Indeed none of the references include either a HEPA filter, any fans, or any power supply to operate those fans, which are the "d," "e," and "f" clauses of claim 1, the battery pack in Ricci being used to provide power to an ultraviolet lamp rather than to run a fan as is specifically stated in the "a power source (72) electrically connectible to said one or more fans" language of claim 1(f). (Claim 1 has been amended to include those letters on each of those clauses for ease of making this present reference.) All of the other claims except claims 21, 22 (that had been claim 22, 23 because of an error in numbering, now corrected) and the new claim 23 are dependent on claim 1, and hence those claims likewise contain those three elements, which as noted are not be found in any of the references. (What had been claims 22, 23 were erroneously included in the first of

the §103 rejections (p. 3) made by the Examiner because they are both independent method claims, and hence could not include a list of tangible elements but only steps. For purposes of completeness, what is now claim 21 has been amended to include the HEPA filter as another element to be provided in practicing the method.) It might be added that no reference includes, nor could accommodate with the elements shown, the emergency procedure of independent claim 23

As to Smissen, “various filtering layers” does not equate to a “multiplicity of air filters,” as the Examiner asserts (Office Action p. 4, line 8), especially when that multiplicity is made up of a “sequence adapted to target specific air pollutants that have been identified as being particularly dangerous to human health (Claim 2). More specifically, in the Summary of the Invention, in a list of lettered features of air purifier 10, the “(f)” clause of the list states “permitting the simultaneous use of a variety of filter media.” (Appl. ¶ 68; Col. 10, 5<sup>th</sup> paragraph from the bottom.) None of the references shows, mentions or suggest the simultaneous use of different filtering media, and indeed precludes the same as in Smissen, that has a number of layers of filter material, not the separate filter media cartridges of the application that can and indeed are designed to contain different media materials, while the layers of Smissen, being separated only by porous metal screens, could only contain a single medium.

Smissen refers only to a single chemical (e.g., potassium permanganate) “that releases oxygen under the action of carbon dioxide and moisture . . . .” Col.1, lines 9 - 12, and hence likewise does not address the entirely different subject of air filtration. Jones is likewise not directed to air filters, but rather to an indicator that shows when a chemical purifying material has been exhausted, thus again not addressing or showing any filtration process at all. The molecular sieve material to which the Examiner refers (Col. 3, lines 18 - 41) is present for the purpose of “enhancing the color change activity and display function of indicator material 46” (Col. 1, lines 55 - 60; Col.3, lines 18 - 19). The filtering material itself, the continued utility of which is being indicated by the molecular sieve, being activated carbon (Col. 2, lines 26 - 27). That is again a single, material, and not a multiplicity of materials, and indeed no filtration material at all. Jones does not address that material as such, but rather “end-of-service life indicator 32” (Col. 2, lines 49 - 50) comprised of capsule 34 (Col. 2, lines 50 - 51; 55 - 59). The molecular sieve acts entirely on capsule 34 and indicator 32, seeking to keep water that would detract from the indicator 32 efficacy out of indicator 32, and does in itself participate in any interaction with the actual filter material.

The inventive concept of the present invention, on the other hand, is a composite filter that, in one apparatus, is adapted to remove a wide variety of contaminants as in urban air in a single apparatus by using an air pathway that passes through a number of separate filter cartridges, each containing a different material so as to encompass as many as possible of the variety of contaminants expected to be found in urban air, as well as the HEPA filter for removing particulate matter. That concept is either explicit or implicit in every claim, and those claims must be read and interpreted in light of those parts of the disclosure that pertain to that aspect of the invention. None of the references cited show the slightest hint of that notion, and the mere assertion that it would be obvious to do that, since "different filtration layers would help to clean out certain specific contaminant (sic) in the air stream passing through" (Office Action p. 4, end of top paragraph) reads more like a paraphrase of the language directly out of the application, rather than either any suggestion concerning the air filtration process itself, nor any air filtration material, nor any similar existing knowledge.

Again, just as the Ricci apparatus does no air filtering at all but only provides ultraviolet radiation, Smissen does no air filtering but only uses potassium peroxide to release oxygen, and Jones likewise does no filtering but only measures the expected life of some single filter material extending the useful life of a respirator cartridge or extending the useful life of chemicals intended to indicate the end of life of the active chemicals used in the filtering process by the removal of moisture, respectively, since neither patent makes any suggestion that any aspect of those devices might be used in a respirator of the type set out in the invention. Neither of these patents pertain to a functional respirator as a whole, but only to one component thereof, i.e., the cartridge of a respirator, and neither of them expresses any interest in how to make a respirator as a whole. Likewise, neither the release of oxygen (Smissen), the imposition of ultraviolet light (Ricci), nor the exclusion of water not from the filter material but from a "length-of-life" indicator (Jones) constitutes doing air filtering.) Although Van der Smissen et al. at least discusses a respirator, Jones does not even do that, but has instead to do with an indicator dye that shows when the useful life of the material has that is to do the actual filtering has been exhausted. It is, of course, a standard rule of patent law, set out in M.P.E.P. § 706.02(j), that when a patent has been found that includes most of the elements of a set of disputed claims, an Examiner cannot just search through numbers of other patents in order to find one or more other patents that include those missing elements and then join those patents together to make a 35 U. S. C. § 103 rejection. The entire basis on which the rejection

is made, as listed in § 706.02(j), must also be documented, and in this case it would seem that no such documentation could be provided, since the Examiner has expressed rejections based on a topic that neither reference patent even addresses, namely, the making of a respirator. Since those 35 U.S.C. § 103 rejections are the only ones that the Examiner has expressed, Applicant respectfully requests that the present rejections be withdrawn in their entirety.

Respectfully submitted:

A handwritten signature in cursive script, reading "William S. Lovell".

William S. Lovell,

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(and the inventor)

Nov. 25, 2005